

REMARKS

The above-identified patent application has been reviewed in light of the Examiner's Action dated March 10, 2005. Claims 1, 4-6, 13, 16-19, 24, 26, 27, 30, 36, 38 and 39 have been amended without intending to abandon or to dedicate to the public any patentable subject matter. Therefore, Claims 1-42 are now pending. As set out more fully below, reconsideration and withdrawal of the objections to and rejections of the claims are respectfully requested.

Claims 16 and 17 stand objected to because they recite "a method" instead of "the method." In the amendments set forth above, corrections to Claims 16 and 17 have been entered.

Claims 1-42 stand rejected under 35 U.S.C. §102 as being unpatentable over U.S. Patent No. 6,260,120 to Blumenau et al. ("Blumenau"). In order for a rejection under 35 U.S.C. §102 to be proper, each and every element as set forth in a claim must be found, either expressly or inherently described, in a single prior art reference. (MPEP §2131.) However, each and every element of the claims cannot be found in the Blumenau reference. Accordingly, reconsideration and withdrawal of the rejections of the claims as anticipated by Blumenau are respectfully requested.

The present invention is generally directed to obtaining information by a storage controller in connection with the operation of a network storage system. More particularly, information related to the identity of a host transmitted by the host in connection with a host bus scan is captured by a storage controller, either directly or through a network switch. Accordingly, information regarding hosts can be collected without requiring the installation of network storage system specific software on the host. In addition, Applicants note that the pending claims have been amended to specify that the recited controller comprises a storage controller to clarify that such controller is related to a network storage system.

The Blumenau reference is generally directed to storage mapping and partitioning among multiple host processors. More particularly, Blumenau discusses a storage controller for controlling access to data storage that has memory and at least one data port for a data network including host processors. (Blumenau Abstract.) The memory is programmed to define a respective specification for each host processor of a subset of the data storage to which access by the host processor is restricted, and each specification is associated with a host identifier stored in the memory. (Blumenau Abstract.) The programming of memory in the storage controller is

further described by Blumenau as storing in memory the respective specification for each host processor and storing associated information identifying each host processor in association with the respective specification. (Blumenau, col. 2, ll. 49-55.) However, there is no discussion in Blumenau of a storage controller that uses information transmitted as part of a bus scan conducted by a host to collect information related to the host. That is, Blumenau does not discuss a system in which a storage controller obtains information from a network scan initiated by a host. Instead, Blumenau discusses starting a graphical user interface associated with a storage system (Blumenau, col. 30, ll. 24-26) that provides a host installation facility and entering an installation mode according to which each host controller port is queried by the installation facility of the storage systems graphical user interface for its port worldwide name (WWN) (Blumenau, col. 36, ll. 41-57). The host installation facility then interrogates the data network for the WWNs of the storage subsystem ports, and from the information returned the host user can select a given storage subsystem adapter port WWN to cause an application interface function that reads all of the LUN bitmap entries from the storage subsystem volume configuration database. (Blumenau, col. 36, l. 58 – col. 37, l. 23.) Accordingly, Blumenau does not describe a system in which the WWN or other information related to a host is provided to a storage system controller through a bus scan performed by a host as part of a normal host boot or initiation process. Instead, Blumenau discusses specialized functions that can be used in connection with accessing storage system volumes that have already been allocated to known hosts. In contrast, embodiments of the invention set forth in various of the claims are related to an automated method in which a storage controller detects hosts and obtains information regarding those hosts as a result of bus scans performed by the hosts as those hosts boot. This allows an administrator to assign specific LUN permissions to specific host ports without requiring specialized host based software, and without requiring manual entry of host identifiers.

More particularly, Claim 1 is directed to a method for facilitating use of a system that includes at least one host and at least one controller. The method includes conducting a bus scan at a first host for obtaining, by a first storage controller, first information for identifying said first host. In addition, the bus scan conducted at the first host includes transmitting the first information from the host to the first storage controller. The method further includes using the information by the first storage controller and facilitating use of the system. As noted above, the

Blumenau reference does not describe conducting a bus scan at a first host from which a first storage controller obtains first information for identifying the first host. Therefore, Blumenau does not describe a method as recited by Claim 1 and dependent Claims 2-18. Accordingly, the rejections of Claims 1-18 as anticipated by Blumenau should be reconsidered and withdrawn.

Claim 19 is generally directed to a method for facilitating use of a system that includes at least one host and at least one storage controller. The method includes accessing by a first storage controller a network switch communicating with the first host for obtaining, by the first storage controller, first information for identifying the first host. Claim 19 further recites using the first information by the first storage controller and facilitating use of the system. Accordingly, Claim 19 is related to embodiments in which a storage controller retrieves information that has been captured by a switch in the communication path between a host and a network storage system. The Blumenau reference does not describe a method according to which a storage controller can obtain information for identifying a host from a network switch. Furthermore, the portions of Blumenau cited by the Office Action with respect to Claim 19 are related to a virtual switch provided as part of a port adapter. Accordingly, for at least these reasons, Claim 19 and dependent Claims 20-25 are not anticipated by Blumenau, and the rejections of these claims should be reconsidered and withdrawn.

Claim 26 is generally directed to an apparatus for facilitating use of a system that includes at least one storage controller that is accessible by one or more hosts. The storage controller includes a network interface for receiving network transmissions from each of the one or more hosts. In addition, the controller determines first host identifying information from a first of the network transmissions when the first network transmission is the result of a bus scan on the first host. In addition, the storage controller sends the first host identifying data indicative of the first information to an administrative subsystem. As noted above, the Blumenau reference does not discuss determining first host identifying first information from a network transmission that is a result of a host bus scan. Therefore, for at least these reasons, Claim 26 and dependent Claims 27-37 are not anticipated by Blumenau, and the rejections of these claims should be reconsidered and withdrawn.

Claim 38 is generally directed to an apparatus for facilitating use of a system that includes at least one controller that is accessible by one or more hosts. The apparatus comprises a storage

controller that includes a network interface for receiving network transmissions from each of the one or more hosts. In addition, the storage controller accesses a network switch via a transmission on a network for obtaining first information for identifying the first host that is provided to the network by the network interface. Furthermore, the storage controller communicates with an administration subsystem related to the first information. Because the Blumenau reference does not discuss the collection of information related to a host from a network switch, Claim 38 and dependent Claims 39-42 are not anticipated by Blumenau, and the rejections of these claims should be reconsidered and withdrawn.

The application now appearing to be in form for allowance, early notification of same is respectfully requested. The Examiner is invited to contact the undersigned by telephone if doing so would expedite the resolution of this case.

Respectfully submitted,

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